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(19)	AA	3,480,613	A	Walton et al.	11-25-1969	Figs Appear			
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\longrightarrow	AC	6,340,690	B1	Bachand et al.	01-22-2002				
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\longrightarrow	AE	6,395,716	B1	Gosselin et al. (Novirio / Idenix)	05-28-2002				
	AF	6,444,652	B1	Gosselin et al. (Novirio / Idenix)	09-03-2002				
	AG	6,573,248	Bl	Ramasamy et al.	06-03-2003				
$\dashv \rightarrow$	AH	2002/0019363	Al	Ismaili et al.	02-2002				
+	AI	2002/0055483	Al	Watanabe et al.	05-09-2002				
	AJ	2002/0147160	A1	Bhat et al.	10-10-2002				
\dashv	AK	2003/008841	A1	Devos et al.	01-09-2003				
	AL	2003/028013	A1	Wang et al.	02-06-2003				
	AM	2003/0050229	A1	Sommadossi et al.	03-13-2003				
-, / 	AN	2003/0060400	A1	LaColla et al.	03-27-2003				
- XX -	AO	2003/0083307	A1	Devos et al.	05-01-2003				
	AP	2003/0087873	A1	Stuyver et al.	05-08-2003				

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P	AQ	FR	1,521,076	A	Merck & Co. Inc.	04-12-1968	Figures Appear	
	AR	FR	1,581,628	Α	Merck & Co. Inc.	09-19-1969		-
 -	AS	FR	2,662,165	Α	Univ. Paris Curie	11-22-1991		-
	AT	GB	1,163,103	Α	Merck & Co. Inc.	09-04-1969		
	AU	GB	1,209,654	Α	Merck & Co. Inc.	10-21-1970		-
	AV	JP	63-215694	Α	Yamasa Shoyu Co. Ltd.	09-08-1988		
	AW	JP	06-228186	Α	Yamasa Shoyu Co. Ltd.	08-16-1994		
	AX	WO	98/16184	A2	ICN Pharmaceuticals	04-23-1998		
·	_AY	WO	99/43691	Al	Emory U.; U.Ga.R.F.	02-09-1999		-
-XK	AZ	WO	00/09531	A2	Novirio Pharm. (Idenix)	02-24-2000		
("	AAA	wo	01/32153	A2	Biochem Pharma	05-10-2001		

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10	BA	WO	01/60315	A2	Biochem Pharma	08-23-2001		
	BB	WO	01/68663	Al	ICN Pharmaceuticals	09-20-2001		
	BC	Wo	01/79246	A2	Pharmasset	10-25-2001		\vdash
	BD	WO	01/90121	A2	Novirio Pharm. (Idenix)	11-29-2001		\vdash
	BE	WO	01/91737	A2	Novirio Pharm. (Idenix)	06-12-2001		\vdash
	BF	wo	01/92282	A2	Novirio Pharm. (Idenix)	06-12-2001		-
<u></u>	BG	WO	01/96353	A2	Novirio Pharm. (Idenix)	12-20-2001		
	BH	WO	02/03997	Al	ICN Pharmaceuticals	01-17-2002		
- - 	BI	wo	02/18404	A2	F. Hoffmann-La Roche	03-07-2002		
<u> </u>	BJ	wo	02/32920	A2	Pharmasset	04-25-2002		_
	BK	WO	02/48165	A2	Pharmasset .	06-20-2002		
	BL	wo	02/057287	A2	Merck & Co. Inc.	07-25-2002		
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	BN	wo	02/070533	A2	Pharmasset	09-12-2002		
	BO	wo	02/094289	A1	F. Hoffmann-La Roche	11-28-2002		
	BP	wo	02/100415	A2	F. Hoffmann-La Roche	12-19-2002		
	BQ	wo	03/026589	A2	Idenix; CNRS; U. Montp.	04-03-2003		
	BR	WO	03/026675	Al	Idenix; CNRS; U. Montp.	04-03-2003		\dashv
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	BV	WO	03/062255	A2	Ribapharm	07-31-2003		
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	BZ	WO	03/068162	A2	Pharmasset	08-21-2003		-1
-1/-1	BAA	WO	03/072757	A2	Biota Inc.	09-04-2003		4
	BAB	wo	03/093290	A2	Genelabs Technologies	11-13-2003		1
	BAC	wo	04/002422	A2	Idenix; Univ.D.S.Cagliari	01-08-2004		\dashv
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11/3	ツ ^C へ	ALTMANN et al, "The synthesis of 1'-methyl carbocyclic thymidine and its effect on nucleic acid									
1	CB	duplex stability," Synlett, Thieme Verlag, Stuttgart, De, 10:853-855 (1994).									
1	L CB	BAGINSKI, S. G, et al., "Mechanism of action of a pestivirus antiviral compound," PNAS USA,									
-	97(14):7981-7986 (2000).										
	cc	BEIGELMAN, L.N., et al, "Epimerization during the acetolysis of 3-O-acetyl-5-O-benzoyl-1,2-O-									
	I	isopropylidene-3-C-methyl-a,D-ribofuranose. Synthesis of 3'-C-methylnucleosides with the R-D-	ose. Synthesis of 3'-C-methylnucleosides with the β-D-								
\vdash		ribo- and α-D-arabino configurations," Carbohydrate Research, 181-77-88 (1988)									
1 1	CD	BEIGELMAN, L.N., et al, "A general method for synthesis of 3'-C-alkylnucleosides." Nucleic Acids	\vdash								
\vdash		1 Symp. Ser., 9:113-118 (1981).									
I /	CE	BERENGUER, M., et al, "Hepatitis B and C viruses: Molecular identification and targeted antiviral	-								
		therapies," Proceedings of the Association of American Physicians, 110(2) 98-112 (1998)	·								
	CF	CARROLL, S.S., et al., "Inhibition of hepatitis C virus RNA replication by 2'-modified pucleoside									
		analogs," The Journal of Biological Chemistry, 278(14):11979-11984 (2003).									
	CG	CZERNECKI, S., et al, "Synthesis of various 3'-branched 2',3'-unsaturated pyrimidine nucleosides as									
		potential anti-HIV agents," J. Org. Chem., 57:7325-7328 (1992).									
	CH	De FRANCESCO, R., et al., "Approaching a new era for hepatitis C virus therapy: Inhibitors of the									
		NS3-4A serine protease and the NS5B RNA-dependent RNA polymerase," Antiviral Research, 58:1-									
		16 (2003).									
	CI	FAIVRE-BUET, V., et al, "Synthesis of 1'-deoxypsicofuranosyl-deoxynucleosides as potential anti-									
		HIV agents," Nucleosides & Nucleotides, 11(7):1411-1424 (1992).									
	CJ	FARKAS, J., et al., "Nucleic acid components and their analogues. XCIV. Synthesis of 6-amino-9-(1-									
		deoxy-β-D-psicofuranosyl)purine", Collect. Czech. Chem. Commun. 32:2663-2667 (1967).	ľ								
	CK	FARKAS, J., et al., "Nucleic acid components and their analogues. LXXIX. Synthesis of methyl 1-									
		deoxy-D-psicofuranosides substituted at C(1) with halo atoms or a mercapto group," Collect. Czech.									
$ldsymbol{L}$		Chem. Commun., 31:1535-1543 (1996).									
	CL	FEDOROV, 1.1., et al, "3'-C-Branched 2'-deoxy-5-methyluridines: Synthesis, enzyme inhibition, and									
The state of the s		antiviral properties," J. Med. Chem., 35(24):4567-4575 (1992).	ľ								
	CM	FRANCHETTI, P., et al., "2'-C-Methyl analogues of selective adenosine receptor agonists: synthesis									
		and binding studies," J. Med. Chem., 41(10):1708-1715 (1998).									
V	CN	GROUILLER, A., et al., "Novel p-toluenesulfonylation and thionocarbonylation of unprotected									
1		thymine nucleosides," Synlett, 1993, 221-222 (March 1993).	1								
1	S CO	HARAGUCHI, K., et al., "Preparation and reactions of 2'- and 3'- vinyl bromides of uracil									
2		nucleosides: Versatile synthons for anti-HIV agents," Tetrahedron Letters, 32(28):3391-3394 (1991).									
		1 121 ugons, Terraneuron Leners, 32(28):3391-3394 (1991).									

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PTO/SB/08A (08-03)

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3425635 1 OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, Examiner Cite Initials * journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. SAMANO, V., et al., "Nucleic acid related compounds. 77. 2',3'-Didehydro-2',3'-dideoxy-2'(and 3')-methylnucleosides via [3,3]-sigmatropic rearrangements of 2'(and 3')-methylene-3'(and 2')-Othiocarbonyl derivatives and radical reduction of a 2'-chloro-3'-methylene analogue," Can. J. Chem., 71:186-191 (1993). FB SCHMIT, C., et al, "The effects of 2'- and 3'-alkyl substituents on oligonucleotide hybridization and stability," Biorganic & Medicinal Chemistry Letters, 4(16):1969-1974 (1994). ["Altmann"] FC SERAFINOWSKI, P.J., et al., "New method for the preparation of some 2'- and 3'-trifluoromethyl-2',3'-dideoxyuridine derivatives," Tetrahedron (Elsevier Science Publishers), 56(2):333-339 (1999). SHARMA, P.K., et al., "Synthesis of 3'-trifluoromethyl nucleosides as potential antiviral agents," FD Nucleosides, Nucleotides and Nucleic Acids, 19(4):757-774 (2000). SOMMADOSSI J-P, et al., "Comparison of cytotoxicity of the (-)- and (+)-enantiomer of 2',3'dideoxy-3'-thiacytidine in normal human bone marrow progenitor cells" Biochemical Pharmacology, 44:1921-1925 (1992). SOMMADOSSI J-P, et al., "Toxicity of 3'-azido-3'-deoxythymidine and 9-(1,3-dihydroxy-2propoxymethyl)guanine for normal human hematopoietic progenitor cells in vitro" Antimicrobial Agents and Chemotherapy, 31:452-454 (1987). TRITSCH, D., et al., "3'-β-ethynyl and 2'-deoxy-3'-β-ethynyl adenosines: First 3'-β-branched adenosines substrates of adenosine deaminase," Bioorganic & Medicinal Chemistry Letters, 10:139-TUNITSKAYA, V.L., et al., "Substrate properties of C'-methyl UTP derivatives in T7 RNA FH polymerase reactions. Evidence for N-type NTP conformation," FEBS Letters, 400:263-266 (1997). USUI, H., et al., "Synthesis of 2'-deoxy-8,2'-ethanoadenosine and 3'-deoxy-8,3'-ethanoadenosine (Nucleosides and Nucleotides. LXIV)," Chem. Pharm. Bull., 34(1):15-23 (1986). FJ WALCZAK, K., et al., "Synthesis of 1-(3-alkyl-2,3-dideoxy-D-pentofuranosyl)uracils with potential anti-HIV activity," Acta Chemica Scand., 45:930-934 (1991). FK WALTON, E., et al., "Branched-chain sugar nucleosides. V. Synthesis and antiviral properties of several branched-chain sugar nucleotides," J. Med. Chem., 12:306-309 (1969). WOLFE, M.S., et al., "A concise synthesis of 2'-C-methylribonucleosides," Tetrahedron Letters, FL 36(42):7611-7614 (1995). WU, J.-C., et al., "A new stereospecific synthesis of [3.1.0] bicyclic cyclopropano analog of 2',3'-FM dideoxyuridine, Tetrahedron, 46(7):2587-2592 (1990).

Examiner	Date	1 1
Signature	Considered	3/21/08
	Considered	7/3/193

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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	Complete if Known
Application Number	10/602,694
Filing Date	June 20, 2003
First Named Inventor	Sommadossi et al.
Group Art Unit	1623
Examiner Name	Travis C. McIntosh, III
Attorney Docket Number	06171.105073 IDX 1006 CON 1 US

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			U.S	S. PATENT DOCUMENTS			
Examiner Initials *	Cite No. 1		Kind Code if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages/Relevant Figures Appear	Té
(D)	AA	6,455,508	BI	Ramasamy et al.	09-24-2002		
	AB	6,495,677	Bl	Ramasamy et al.	12-17-2002		
	AC	6,566,344	B1	Gosselin et al.	05-20-2003		
	AD	6,566,365	B1	Storer	05-20-2003		
	AE	6,569,837	Bl	Gosselin et al.	05-27-2003		
	AF	6,605,614	B2	Bachand et al.	08-12-2003		
	AG	6,660,721	B2	Devos et al.	12-09-2003		
	AH	6,748,161	B2	Ko et al.	06-08-2004		
	AI	6,777,395	B2	Bhat et al.	08-17-2004		
	AJ	6,784,166	B2	Devos et al.	08-31-2004		
	AK	6,812,219	B2	LaColla et al.	11-02-2004		
	AL	6,815,542	B2	Hong et al.	11-09-2004		
	AM	6,831,069	B2	Tam, et al.	12-14-2005		
	AN	6,908,924	B2	Watanabe, et al.	06-21-2005	-	
	AO	6,911,424	B2	Schinazi, et al.	06-28-2005		
	AP	6,914,054	B2	LaColla et al.	07-05-2005		
	AQ	2002-0099072	Al	Bachand et al.	07-25-2002		
	AR	2002-0156030	A1	Ramasamy et al.	10-24-2002		
	AS	2003-0008841	Al	Devos et al.	01-09-2003		
	AT	2002-0147160	Al	Bhat, et al.	10-10-2002		
	ΑU	2003-0220290	A1	Gosselin et al.	11-27-2003		
	ΑV	2003-0225028	Al	Gosselin et al.	12-04-2003		
	AW	2003-0225037	Al	Storer	12-04-2003		
	AX	2003-0236216	Al	Devos, et al.	12-25-2003		
	AY	2004-0002476	Al	Stuyver, et al.	01-01-2004		
	AZ	2004-0002596	Al	Hong et al.	01-01-2004	·	
	AAA	2004-0023921	Al	Hong, et al.	02-05-2004		
	AAB	2004-0059104	Al	Cook et al.	03-25-2004		П
	AAC	2004-0063622	Al	LaColla et al.	04-01-2004		
	AAD	2004-0063658	Al	Roberts et al.	04-01-2004		
	AAE	2004-0067901	A1	Bhat et al.	04-08-2004		
	AAF	2004-0072788	A1	Bhat et al.	04-15-2004		

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Attorney Docket Number

Substitute for firm 1449A/PTO ORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known Application Number 10/602,694 Filing Date June 20, 2003 First Named Inventor Sommadossi et al. **Group Art Unit** 1623 Examiner Name Travis C. McIntosh, III

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			U.S	. PATENT DOCUMENTS			
	Cite	U.S. Patent Doc	ument	Name of Patentee or Applicant of	Date of Publication	Pages, Columns, Lines,	Γ
	No. 1	Number	Kind Code (if known)	Cited Document	of Cited Document MM-DD-YYYY	Where Relevant Passages/Relevant Figures Appear	T*
	BA	2004-0097461	Al	Sommadossi et al.	05-20-2004		
	BB	2004-0097462	Al	LaColla et al.	05-20-2004		
	BC	2004-0101535	Al	Sommadossi et al.	05-27-2004		
	BD	2004-0102414	Al	Sommadossi et al.	05-27-2004		
	BE	2004-0110717	Al	Carroll, et al.	06-10-2004	<u> </u>	
	BF	2004-0110718	Al	Devos et al.	06-10-2004		\top
	BG	2004-0147464	Al	Roberts, et al.	07-29-2004		1
	вн	2004-0248844	Al	Ismaili et al.	12-09-2004		\top
	BI	2005-0009737	Al	Clark, et al.	01-13-2005		
	BJ	2005-0090463	A1	Roberts, et al.	04-28-2005		1
	BK	2005-0101550	A1	Roberts, et al.	05-12-2005		T
	BL	2005-0107312	Al	Keicher, et al.	05-19-2005		\top
1//	ВМ	2005-0119200	Al	Roberts, et al.	06-02-2005	· 	\top
2) BN	2005-0124532	Al	Sommadossi et al.	06-09-2005		
TW	во	2005-0137161	A1	Sommadossi et al.	06-23-2005		

	FOREIGN PATENT DOCUMENTS								
Examiner Initials *	Cite No. ¹	For Office ³		ment nd Code ² if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages/ Relevant Figures Appear	T ⁶	
	BP	FR	2,662,165	A1	Univ. Pier et Curie	11-22-1991	provided as Derwent Abstract		
A	BQ	JР	63-215694	A2	Yamasa Shoyu Co. Ltd.	09-08-1988	provided as Delphion Abstract		
	BR	ЛР	06-228186	A2	Yamasa Shoyu Co. Ltd.	08-16-1994	provided as Delphion Abstract		

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